

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

10/506915

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
2 October 2003 (02.10.2003)

PCT

(10) International Publication Number  
WO 03/081349 A1

(51) International Patent Classification<sup>7</sup>: G05B 15/00,  
H01P 1/205, H03J 1/00

(21) International Application Number: PCT/IB03/01604

(22) International Filing Date: 21 March 2003 (21.03.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
102 12 427.2 21 March 2002 (21.03.2002) DE

(71) Applicant (for all designated States except US): MAR-  
CONI COMMUNICATIONS GMBH [DE/DE]; Gerber-  
strasse 33, 71520 Backnang (DE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): MAIER, Thomas  
[DE/DE]; Schoenbuechstrasse 12, 77887 Sasbachwalden  
(DE).

(74) Agent: CAMP, Ronald; Marconi Intellectual Property,  
Marrable House, The Vineyards, Great Baddow, Chelms-  
ford, Essex CM2 7QS (GB).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,  
DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,  
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,  
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM,  
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND ARRANGEMENT FOR AUTOMATIC ADJUSTMENT OF DEVICES HAVING SETTING ELE-  
MENTS, AND A CORRESPONDING COMPUTER PROGRAM PRODUCT AND A CORRESPONDING COMPUTER-READ-  
ABLE STORAGE MEDIUM

(57) Abstract: In a method and an arrangement for automatic adjustment of devices having setting elements, and a corresponding computer program product and computer-readable storage medium, the adjustment comprises the following steps: (a) Carrying out a first measurement of a characteristic curve to be controlled by the adjustment at predefined measurement points, each setting element assuming a reference setting, (b) testing a termination condition and terminating the method if this condition is satisfied, executing the following steps if the terminating condition is not satisfied, (c) modifying the reference setting of a setting element and measuring the characteristic curve again at predefined measurement points for this configuration of the setting elements (d) reproducing the initial reference setting of the setting element modified in step (c), (e) when there is more than one setting element, (f) calculating the gradient functions of the characteristic curve, (g) calculating new settings of the setting elements by minimizing an error function by using the measured values obtained in steps (a) and (c) and the gradient functions calculated in step (f), and (h) carrying out the method again, beginning with step (a), the settings calculated in step (g) serving as the new reference setting.

WO 03/081349 A1

